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Observations of Comet b 1881 *made at Monte Video.*

By Lieut. B. E. W. Gwynne, R.A.

The diagram sent represents the approximate position of a comet with reference to the surrounding stars, seen from H.M.S. *Garnet* whilst laying at Sandy Point Road (Straits of Magellan) on the night of May 30, 1881, at 6.30 P.M. Ship Mean Time. I only had time to take two good sextant angles with *Sirius* and *Canopus*, which were: corrected 26° 18′ (*Canopus*), 26° 10′ (*Sirius*); approximate R.A. of comet $5^h\ 2^m$; Decl. of Comet 26° 40′ S. The later observations were as follows:—

Date 1881.	Sirius.	L.M.T.	Canopus.	L.M.T.	Achernar.	L.M.T.	Remarks.
May 31 Bar. 29·80 Ther. 33	25 38 30	6 5	27 14 10	6 10	45 39 10	6 15	Latitude and Longitude of Observer
June 1 Bar. 29·94 Ther. 36	25 9 10	5 56	28 7 0	6 0	46 30 50	6 3	53 10 20 S.
June 2 Bar. 30·10 Ther. 40	24 34 0	5 45	29 2 50	5 49	47 30 30	5 52	70 53 17 W.

The above are carefully observed sextant angles (corrected for index error) between the comet's nucleus and the stars *Sirius*, *Canopus*, and *Achernar*.

The following will give a good idea of the position of the comet on the evening of June 1, at 6 P.M. Ship Mean Time.

A line drawn from *Sirius* at right angles to a line joining *Canopus* and *Rigel*, and produced 4° beyond it, passed through the nucleus of the comet.

The axis of the comet's tail was parallel to the line joining *Canopus* and *Rigel*.

The nucleus presented the appearance of a planet (such as *Jupiter*) with its brilliancy "dulled" by the nebulous matter that slightly precedes as well as surrounds it and also forms its tail. The latter subtended an arc of about 4°, and pointed towards *Canopus*, whilst the nucleus points to *Rigel*.

Observations of Comet b 1881 *made at Pretoria.*

By E. C. Markwick, Esq.

I send a short account of a comet which has been lately visible in the Southern Hemisphere, and which has been to an astronomical eye a beautiful object.

On the evening of May 30, about 6.30 P.M. local time, my attention was attracted by a nebulous-looking star in the S.W. quarter of the sky, and not 20° above the horizon. In a few moments I could detect a faint tail, and on looking at it through a small achromatic of $1\frac{3}{4}$ inches aperture, saw at once that it

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was a very pretty comet, with a brilliant head. No distinct nucleus could then be seen, but the central brilliancy was gradually softened off all round with a woolly light. The tail seemed to start back in a straight line opposite to the Sun's direction, and faded away rapidly, although with the naked eye I should estimate it might be traced some 4° or 5°, if not more. It was inclined to the horizon at an angle of between 30° and 40°. The head was situated at the apex of a right-angled triangle constructed on the line joining β *Columbæ* and α *Leporis*, and, as far as I could judge roughly (on comparison with Proctor's smaller star atlas) was in R.A. $5^{\rm h}\ 0^{\rm m}$, S.D. 32°.

On May 31, at 6·30 P.M. the general appearance was unchanged; perhaps it was a shade brighter. Position roughly estimated, R.A. $5^{\rm h}\ 0^{\rm m}$, S.D. 30°. Head about equal distances from *Sirius* and *Canopus*. In intrinsic brightness I estimated it between β and γ Leporis, or between 4th and 5th mag., but owing to there being quite a disk visible to the naked eye, the head appeared more like a 2nd mag. star. With the telescope there was a distinct nucleus visible in the head, although rather dull. The upper edge of the tail passed just over o *Columbæ*, and I could not fairly trace it beyond, although faint glimpses of a further extension could occasionally be caught by averted vision.

June 1.—Comet perceptibly increased in brilliancy. At 6.10 P.M. I took alignments, and found the head as near as might be in a line with β and α *Columbæ*, and two-thirds the distance between β and α *Leporis*, below a line drawn through those stars towards *Columba*. Hence I estimate its position at R.A. $5^{\rm h}\ 0^{\rm m}$, S.D. 28° 30′. The direction of the tail was from this point towards ζ *Pictoris*, the direction having apparently changed since last night. Nucleus woolly, and not well-defined. To the naked eye it looked like a beautiful, dull rocket. A faint star could be seen through its tail, and several near.

June 2.—Cloudy; no satisfactory observations.

June 3.—First seen at 6 P.M. Undoubtedly brighter; but it is getting low in the west, and the increasing moonlight interferes much with its appearance. Taking angles with a pocket sextant (without corrections for refraction), I found the head to be—

At 7 P.M., 24° 0′ from *Sirius*,
and 29° 55′ from *Canopus*.

Taking eye observations, I noted it as three-fourths the distance between α and β *Leporis*, below a line joining those stars and produced; and two-thirds the distance between α and β *Columbæ* to the right or N. of a line joining those stars and produced.

June 4.—Comet very badly situated for observation. Angles with sextant:—

At $6^{\rm h}\ 35^{\rm m}$ P.M., 23° 43′ from *Sirius*.
At $6^{\rm h}\ 40^{\rm m}$ P.M., 30° 53′ from *Canopus*.

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